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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,687	03/15/2002	Sebastien MacKaie	PHFR 010033	4907

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS	VO, TED T	
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DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

<u>A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.</u>
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *16 December 2004*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-8* is/are pending in the application.

    4a) Of the above claim(s) *8* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-7* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☒ Claim(s) *8* are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This action is in response to the amendment filed on 12/16/2004 responsive to the Office action

dated, 09/20/04.

        In view of the amendment, the objections to the Abstract and the oath/declaration in the prior

Office Action are withdrawn.

        - Claims 1, 3, 4, 7 are amended.

        -Claim 8 is amended into an independent form.

        - New ground of rejection is given to Claims 5-7 under 35 U.S.C. 112, second paragraph, in this

application. Accordingly, this action is non-final.

        - Claims 1-8 are pending in this application.

Election/Restrictions

2.   Newly independent claim 8 that is amended in an independent form is directed to an invention

that is independent or distinct from the invention originally claimed for the following reasons:

The originally claiming, Claims 1-7, software architecture and method, and the newly independent claim 8

are distinct.

-The originally claiming, which claims for modules and method, is functionality to programming of a

programming language, classified in class 717, subclass 114

 -The newly independent claim 8 directs to an radio telephone which is functionality to a controllable

phase locked loop, classified in class 455, subclass 39+, class 327, subclass 141.

Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and

they have **different modes of operation, different functions, or different effects** (MPEP § 806.04,

MPEP § 808.01). Furthermore, this case, they are also separate status in the art, different classification,

and divergent fields of search.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Since the claims 1-7 are entered and pending in this application. It is respectfully requested for a cancellation, and suggested that a divisional application would be filed in regard to the newly independent Claim 8.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 8 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Response to Arguments

3.   Applicant's arguments with respect to claims 1-7 have been considered but are moot because the action is non-final in accordance to the new ground(s) of rejection is given in this action.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5-7: Claims 5-7 have the preamble, "*An architecture-producing method according to claim 4*", that extends the scope of the claims to another scope of the method claim in Claim 4. It should be noted that

the scope of a claim sets the limit of a claim and defines an invention.   Claim 4 appears to be a method

claim while Claims 5-7 are architecture claims specified as the apparatus claims. The definition boundary

set in Claim 5-7 is inconsistent to the definition boundary of Claim 4. The scope of Claim 5-7 within Claim

4 is unclear.

An unclear scope of a claim scope renders that claim indefinite. Thus Claims 5-7 are indefinite.

The scope of claims 5-7 will be interpreted as defining a method claim.

Claim Rejections - 35 USC § 101

6.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent therefor,
> subject to the conditions and requirements of this title.

7.   The claims 1-7 are rejected under 35 U.S.C 101 because the claimed invention is directed to non-

statutory subject matter.

<u>As per claims 1-3</u>:

        Claim 1 is claiming

A software architecture comprising a plurality of modules (M0-M4), at least one module of said plurality

being a module (M1) adapted to call another one (M3) of said plurality of modules using a reference

(&M3) to said called module, wherein the reference (&M3) of the module to be called is supplied as an

input to said calling module (M1).

The recitations such as "*A software architecture*", "*modules*" are not limited to tangible embodiments. The

claimed limitation "*the reference (&M3) of the module to be called is supplied as an input to said calling*

module" functionalizes to inputted parameters of a program subroutine. The Claim as a whole are merely

reciting or claiming a programming per se.

        Such claimed limitations fail to be in the technological or useful arts and thus fails to recite patent

eligible subject matters.

Claims 2-3 fail to remedy the deficiencies of independent claim 1.

According to the analysis above, claims 1-3 are merely programming per se and held
nonstatutory.

As per claims 4-7:

Claim 4 is claiming

*A method of producing a new module-based software architecture based on an existing module-based
architecture comprising a plurality of modules (M0-M4), at least one module of said plurality being a
module (M1) adapted to call another one (M3) of said plurality of modules using a reference (&M3) to said
called module, wherein the reference (&M3) of the module to be called is supplied as an input to said
calling module (M1),*

*the method comprising the steps of: removing at least one of said plurality of modules (M3), and
altering the value of inputs corresponding to the reference (&M3) of the removed module. (See p*

The Claimed limitations "a new module-based software architecture based on an existing module-based
architecture" is not limited to tangible embodiments.

Recitation, "*A method of producing a new module-based software architecture based on an existing
module-based architecture comprising a plurality of modules (M0-M4), at least one module of said
plurality being a module (M1) adapted to call another one (M3) of said plurality of modules using a
reference (&M3) to said called module, wherein the reference (&M3) of the module to be called is
supplied as an input to said calling module (M1)*" is not limited to a tangible embodiment.

The claimed limitation "*removing at least one of said plurality of modules (M3), and altering the
value of inputs corresponding to the reference (&M3) of the removed module*" could be abstractly
implemented by pencil/pen drawn on papers to parameters within a call subroutine of a commuter
program. The Claim as a whole, which does not recited as it is performed by a hardware system, but
extends it to a method could be performed manually on a paper, will fails to be in the technological or
useful arts and thus fails to recite patent eligible subject matters.

Claims 5-7 fail to remedy the deficiencies of independent claim 4.

According to the analysis above, claims 4-7 are merely recite an abstract idea and held

nonstatutory.

8.   To expedite a complete examination of the instant application the claims rejected under 35 U.S.C.

101 (nonstatutory) above are further rejected as set forth below in anticipation of application amending

these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

9.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for

the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10.   Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Walton, "R-CODE A Very

Capable Virtual Computer", 1995.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per Claim 1: Walton discloses,

A software architecture comprising a plurality of modules (M0-M4), at least one module of said plurality

being a module (M1) adapted to call another one (M3) of said plurality of modules using a reference

(&M3) to said called module, wherein the reference (&M3) of the module to be called is supplied as an

input to said calling module (M1) (See page 25, section 2.3.1, "Objects (*module; calling module*) contain

pointers (*call another*) to other objects (*the reference*)"; see pages 139-140, section 4.5.6: disclosing a

basis software architecture).

As per Claim 2: Walton discloses,

A software architecture as claimed in claim 1, wherein each of said plurality of modules (M0-M4) is

adapted to recognize as a null reference an input parameter having a predetermined value and to not

make a call when the module to be called is indicated by the null reference. (See page 25, section 2.3.1:

"Such a pointer component is said to be null", or see page 92, Figure 3.9, null, unused, etc.).

As per Claim 3: Walton discloses,

A software architecture according to claim 1, wherein each module (Mx) corresponds to a software entity

selected in the group consisting of functions, procedures, operating system tasks, and layers. (See page

1-4, section 1.1, such as C, Fortran,..., *consisting of functions, procedures, operating system tasks;* see

page 139, Calls and Returns: *functions, procedures, operating system tasks, and layers*).

As per Claim 4: Walton discloses,

A method of producing a new module-based software architecture based on an existing module-based

architecture comprising a plurality of modules (M0-M4), at least one module of said plurality being a

module (M1) adapted to call another one (M3) of said plurality of modules using a reference (&M3) to said

called module, wherein the reference (&M3) of the module to be called is supplied as an input to said

calling module (M1) (See rationale in Claim 1 above),

the method comprising the steps of: removing at least one of said plurality of modules (M3), and altering

the value of inputs corresponding to the reference (&M3) of the removed module. (See page 23, second

paragraph: "use of any dangling reference", disclosing that when an object/module deleted, all flags of

dangling references pointed to the deleted object are flagged. See page 31, section 2.4, steps 1-5,

disclosing updating/altering address to a new location, or see page 25, section 2.3.1, disclosing adapting

null pointer to an unreachable object).

As per Claim 5: Walton discloses,

wherein each of said plurality of modules (M0-M4) is adapted to recognize as a null reference an input

parameter having a predetermined value and to not make a call when the module to be called is indicated

by the null reference, and wherein the altering step comprises replacing inputs corresponding to the

reference (&M3) of the removed module with a null reference. (See page 31, section 2.4, steps 1-5,

disclosing updating/altering address to a new location, or see page 25, section 2.3.1, disclosing adapting

null pointer to an unreachable object).

<u>As per Claim 6</u>: Walton discloses,

comprising the step of replacing the removed module by a replacement module (M5) having a different

reference (&M5), wherein the altering step comprises replacing inputs corresponding to the reference

(&M3) of the removed module with inputs corresponding to the reference (&M5) of the replacement

module. (See page 31, section 2.4, steps 1-5, disclosing updating/altering address to a new location, see

page 33, section 2.4.1, disclosing using object map to obsolete the old address of a deleted object and to

forward addresses of (new) objects that have been moved.)

<u>As per Claim 7</u>: Walton discloses,

wherein each module (Mx) corresponds to a software entity selected in the group consisting of functions,

procedures, operating system tasks, and layers. (See page 1-4, section 1.1, such as C, Fortran,...,

consisting of functions, procedures, operating system tasks; see page 139, Calls and Returns: *functions,*

procedures, operating system tasks, and layers).

Conclusion

11.   Any inquiry concerning this communication or earlier communications from the examiner should

be directed to Ted T. Vo whose telephone number is (571) 272-3706. The examiner can normally be

reached on 8:00AM to 5:30PM.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan

Q. Dam can be reached on (571) 272-3694. The fax phone number for the organization where this

application or proceeding is assigned is 703-872-9306.

        Any inquiry of a general nature or relating to the status of this application should be directed to

the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may

be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for

unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted T. Vo
Primary Examiner
Art Unit 2192
April 20, 2005